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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/588,806

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Li Mo

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10/28/2005

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EXAMINER

HARPER, KEVIN C

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/588,806

Applicant(s)

MO ET AL.

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-8, 12-19, 21, 22, 26-30, 32-38 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-19, 21, 22, 26-30, 32-38 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Response to Arguments

1. Applicant's arguments filed September 30, 2005 concerning the Feldman reference have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground of rejection is made in view of Tsukakoshi et al.

2. Applicant's arguments file September 30, 2005 concerning the Dobbins reference have been fully considered but they are not persuasive. Applicant argued that Dobbins does not disclose multiplexing. However, the physical structure of the switch of Dobbins gives rise to an inherent multiplexer and demultiplexer in part for the reasons stated by applicant in the remarks section on page 9 ("a switch can transmit packets from an end station to different links and vice versa"). Because the physical structure of a switch (fig. 5, item 13) of Dobbins allows information from a link to be transmitted to several end stations and vice versa, the definition (or structure) of a multiplexer and demultiplexer is met.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 30 and 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Dobbins et al. (US 5,684,800).

1. Regarding claim 30, Dobbins discloses a node for telecommunication (Figure 5, one of items 11-14) comprising a first port (item 11, port 1) and a second port (item 11, port 3) where each port includes an inherent receive-transmit pair comprising an inherent multiplexer to process egress traffic and an inherent demultiplexer to process ingress traffic (note: traffic to an

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end station is from different sources and traffic from an end station is destined to different destinations -- col. 5, lines 25-31 and col. 6, lines 13-17). The node also comprises an interface to an external network (Figure 5, item 16 and other trunks to SFPS switches) connected to an internal network (ports 1-3) including the node. The node includes a processing system (Figure 3) to store a first routing model for a first port group including the first port (Figure 7, VLAN 100) and one other geographically distributed port (col. 7, lines 6-12) and to store a second routing model for a second port group including the second port (Figure 7, VLAN 20) and one other geographically distributed port (col. 7, lines 6-12). The first port is programmable to process traffic based on the first routing model and the second port is programmable to process traffic based on the second routing model (col. 6, lines 33-45). As presented in the current claim amendment, the first and second ports are associated with network addresses that are inherently disparate (col. 1, lines 33-35; col. 5, lines 14-30). The first routing model (Figure 7, VLAN 100) has only the topology of the first port group and the second routing model (VLAN 20) has only the topology of the second port group.

2. Regarding claims 32-33, the processing system comprises an inherent first CPU to operate the node and an inherent second CPU to be the primary CPU for a port group or groups and to distribute the routing model(s) to each of the ports in the port group(s) (col. 7, lines 6-18).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-8, 12-19, 21-22, 26-29, 34-38 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobbins et al. (US 5,684,800) in view of Coden (US 6,331,985), Tang et al. (US 2003/0165140) and Tsukakoshi et al. (US 6,577,634).

1. Regarding claims 1-3, 5, 7-8, 12-13, 15, 16-19, 21-22, 26-27, 29, 34-37 and 41, Dobbins discloses a transport element (Figure 1, items 11-14) comprising a port group (items 17-19; abstract, lines 1-4) which comprises several ports, point-to-multipoint connectivity between the ports (col. 3, lines 6-25; note: a broadcast packet from any member of a VLAN will be transmitted to all other members of the VLAN), and an identifier operable to represent the port group as a single element (abstract, lines 1-6; note: VLAN-IDs).

2. However, Dobbins does not disclose that the port group is associated with a single IP address. Coden discloses that several destinations are associated with an IP address and a VLAN ID (col. 12, lines 38-39, 44-48 and 50-57). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have an IP address associated with a port group in the invention of Dobbins to facilitate simplified IP transmissions (Coden, col. 7, lines 58-60; note: as opposed to multiple unicast transmissions).

3. Further, Dobbins in view of Coden does not disclose that the identifier represents the port group as a single element to disparate elements (Figure 1, items 20). Tang discloses a multicast address that allows an outside end node to transmit to a VLAN (para. 25, lines 6-12; para. 56, lines 9-14; note: the MVLAN tag or ID is associated with only one VLAN when specified). The MVLAN-ID is a single network address representing several ports in a port group (para. 62, lines 1-10). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a port group identifier that identifies the port group as a single element in the

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invention of Dobbins in view of Coden in order to simplify routing of data packets to multiple destinations.

3. Further, Dobbins in view of Tang does not disclose a primary processor for generating a routing information base and a secondary processor for generating a forwarding base.

Tsukakoshi discloses a primary processor and a secondary processor in a router (fig. 1, item 12). The primary processor (fig. 1, item 20; fig. 4, item 41) generates a routing information base (col. 3, lines 14-27) and distributes the information to a secondary port processor (fig. 1, item 18; fig. 4, item 43; col. 4, lines 45-48). The secondary port processor generates a forwarding information base based on the routing information base (col. 4, lines 53-64). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have primary and secondary processors in the invention of Dobbins in view of Tang in order to implement a scalable router (Tsukakoshi, col. 1, line 66 through col. 2, line 2).

4. Regarding claims 4, 6, 14, 28 and 38, in Dobbins the transport element (Figure 5, item 11) interconnects SFPS switches acting as IP routers (col. 5, lines 11-15; col. 2, lines 5-13) and Frame Relay switches (col. 1, lines 33-35 and col. 2, lines 10-13; note: Frame Relay is a standardized commonly used access technology).

5. Regarding claims 10, 24-25 and 39, in Dobbins an inherent processor (Figure 3) generates and distributes routing information (Figure 3, item 88).

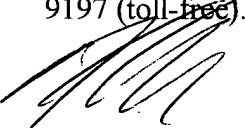
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 571-272-3174. The centralized fax number for the Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin C. Harper

October 26, 2005



DANIEL J. M.
PATENT EXAMINER